COMMERCIAL
SERVICE ENTRANCE DRAWINGS
BUILDING
Only rigid galvanized or intermediate metal (steel) conduit, 2" min, can be used above the roof.

Point of attachment.

Grounding electrode conductor.

Front View

5/8" x 8" Copper clad ground rod and clamp.

Side View

10'-0" min to drip loop.

5'-0" min / 6'-0" max.

16'-0" min over areas subject to pedestrians.

12'-0" min over driveways.

Notes:

1. A single ground electrode shall be supplemented by an additional electrode except when the single electrode has a resistance to earth of 25 ohms or less.

2. Clearance may be reduced to 18 inches if not more than 6 feet of conductors pass over the roof and the service mast is located within 4 feet of the edge of the roof, measured horizontally.

3. Drawing and recommendations are intended to serve as guidance for compliance with code and utility requirements. The NEC and/or Local Code Authorities may have additional requirements to those shown. The more stringent requirement will take precedence for differences between authorities.
Notes:

1. A single ground electrode shall be supplemented by an additional electrode except when the single electrode has a resistance to earth of 25 ohms or less.

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EXTEND CONDUCTORS 36" BEYOND WEATHERHEAD, NEUTRAL TO BE IDENTIFIED WITH WHITE TAPE ON BOTH ENDS, FOR 3 PHASE, 4-WIRE DELTA, 120/240 VOLT SERVICE THE HIGHER VOLTAGE TO GROUND (POWER LEG) MUST BE MARKED ORANGE ON BOTH ENDS.

ROUND 20' TREATED POLE STANDARD 5" MIN DIAMETER AT TOP OF POLE 6" MIN DIAMETER AT GROUNDLINE

* CONDUCTORS ENCLOSED IN RIGID METAL, INTERMEDIATE METAL, OR SCHEDULE 80 PVC CONDUIT, IF SCHEDULE 80 CONDUIT IS USED, FITTINGS AND ADAPTERS MAY BE SCHEDULE 40.

METER SOCKETS ALLOWED: FOR SINGLE PHASE, 4-TERMINAL: 100, 200, OR 320 AMP (SEE NOTE 3) FOR THREE PHASE, 7-TERMINAL: ONLY 200 AMP (SEE NOTE 3)

SEE NOTE 1

WEATHERPROOF UL APPROVED MAIN DISCONNECT PANEL

GROUNDING ELECTRODE CONDUCTOR

TOP OF GROUND ROD BELOW GRADE

SEE NOTE 2

5/8" x 8' COPPER CLAD GROUND ROD AND CLAMP

18" MIN

Notes:
1. If non-metallic conduit is used between the meter socket and main disconnect, a bonding conductor shall be installed.
2. A single ground electrode shall be supplemented by an additional electrode except when the single electrode has a resistance to earth of 25 ohms or less.
3. Three phase meter sockets and 320 Amp single phase meter sockets to be supplied with bypass.
4. Drawing and recommendations are intended to serve as guidance for compliance with code and utility requirements. The NEC and/or Local Code Authorities may have additional requirements to those shown. The more stringent requirement will take precedence for differences between authorities.

* Conductor Sizes for General Purpose Service Equipment

<table>
<thead>
<tr>
<th>Service Rating (Ampere)</th>
<th>Typical Condut Size (Inches)</th>
<th>Ungrounded Conductor Size (Minimum)</th>
<th>Typical Grounded (Neutral) Conductor Size</th>
<th>Grounding Electrode and Bonding Conductor Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Copper</td>
<td>Copper</td>
<td>Copper</td>
<td>Copper</td>
</tr>
<tr>
<td>100</td>
<td>1.50</td>
<td>2 AWG</td>
<td>1/0 AWG</td>
<td>4 AWG</td>
</tr>
<tr>
<td>200</td>
<td>2.50</td>
<td>3/0 AWG</td>
<td>2 AWG</td>
<td>750 kcmil</td>
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<tr>
<td>400</td>
<td>3.00</td>
<td>500 kcmil</td>
<td>500 kcmil</td>
<td>1/0 AWG</td>
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This table is only a guide for some minimum conductor requirements and is not intended to be a comprehensive list of acceptable conductor sizes. The NEC should be reviewed to ensure compliance with all applicable requirements, including but not limited to conductor size, material, and insulation type.
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OTHER
extend conductors 36" beyond weatherhead, neutral to be identified with white tape on both ends

18' - 0' min if subject to vehicular traffic / 12' - 0' min subject to pedestrians

10' - 0' min to dripl loop

8' - 0' to brace attachment

4' x 4' treated pole or equivalent

* conductors enclosed in rigid metal, intermediate metal, or schedule 80 pvc conduit, if schedule 80 conduit is used. fittings and adapters may be schedule 40.

meter socket

see note 2

weatherproof ul approved main disconnect panel (60 amp min.)

see note 1

grounding electrode conductor

18" min

5/8" x 8" copper clad ground rod and clamp

see note 2

notes:
1. 125 volt single phase, 15, 20, and 30 amp receptacle outlets installed on the pole shall have ground-fault circuit-interrupter (gfi) protection.

2. if non-metallic conduit is used between the meter socket and main disconnect, a bonding conductor shall be installed.

3. a single ground electrode shall be supplemented by an additional electrode except when the single electrode has a resistance to earth of 25 ohms or less.

4. over current protection for the service equipment shall be properly sized per national electric code (nce).

5. outdoor electrical equipment shall be installed in suitable enclosures and shall be protected from accidental contact by unauthorized personnel.

6. drawing and recommendations are intended to serve as guidance for compliance with code and utility requirements. the nec and/or local code authorities may have additional requirements to those shown. the more stringent requirement will take precedence for differences between authorities.

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<tr>
<td></td>
<td>copper</td>
<td>aluminum</td>
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</tr>
<tr>
<td>60</td>
<td>6 awg</td>
<td>4 awg</td>
<td>8 awg</td>
</tr>
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<td>100</td>
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<td>4 awg</td>
</tr>
<tr>
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<td>3/0 awg</td>
<td>250 kmol</td>
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